

REMARKS

1. Claims 1-13 were originally in the application. Claims 5-10 were withdrawn from consideration in a previous amendment. Claim 14 was added in a previous amendment. Claims 1-4 and 11-14 are rejected in the Office Action. Claims 3 and 13 are canceled in this amendment. Claim 1, 2, 4, 11, 12, and 14 are pending.

2. In the Office Action claim 14 is rejected under 35 U.S.C. § 112, second paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Office Action states that there is no support for the term “substantially weakened” in claim 14. Claim 14 has been amended to reflect that the material along the ridge is thinner than that of the original sheet, as opposed to substantially weakened.

3. In the Office Action claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 3,337,664, issued to Yon, in view of United States Patent No. 5,773,540, issued to Irwin, et al. Claim 1 has been amended to include the limitation of dependent claim 3, specifically to include a steel rule to produce the ridge. Neither Yon nor Irwin disclose using a steel rule to produce a ridge, and the plastic articles produces pursuant to the cited references do not have a ridge as produced by the steel rule, or any equivalent feature.

“Steel rule” is a term-of-art used to describe a thin, bendable band of steel which is traditionally embedded edgewise into a die for cutting or stamping. The steel rule itself is also sometimes called a cutting rule. Figure 5 of the application shows a beveled steel rule (12) used to form a ridge (30) about the periphery of a molded article. With regard to the present invention, the steel rule is used to form a ridge, during the thermoforming process, at the periphery of a molded article. The ridge facilitates trimming and provides a lip to impart a finished look to the trimmed article.

The Office Action relies on Irwin, et al. for the forming of a ridge about the periphery of the molded article and for separating the article from the surplus material after the molding operation. Applicant respectfully submits that Irwin clearly does not disclose using a steel rule, and, except for the use of a scissor action between male and female mold halves, does not disclose any relationship between the formed ridge and a trimming operation. In fact, the ridge formed between features 68 and 90 of the Irwin, et al. device would not facilitate trimming. With a multi-cavity mold producing parts in a continuous web, as shown by Irwin, et al., the flange would not improve the ability to trim the part using a router or saw, simply because the interior articles are inaccessible. Further the rectangular nature of the flange would not facilitate cutting a clean edge with a knife.

Unlike the present invention which uses either a male mold or a female mold, Irwin, et al. discloses a two-part mold having coacting male and female halves. In the Irwin, et al. device, for each feature formed over a male portion of the mold, there is a female portion in which the plastic

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material is received. Thus, a flange is not just formed over male feature (90), it is formed by the interaction between male feature (90) and female feature (68). As can be seen in Figure 2, male feature (90) is not a steel rule. Further, the flange formed by features (68) and (90) is not equivalent to the ridge former by the steel rule of the present invention, a narrow ridge which facilitates a secondary trimming operation. While Irwin, et al. discloses a secondary trimming operation, there is no indication that the trimming operation makes any use on the flange. Simply trimming a part free of its sheet is well known in the art and discussed in the specification of the present application.

Thus, while steel may be notoriously well known in the molding art, the use of a steel rule in thermoforming to create a ridge to facilitate a secondary trimming operation is not known.

Applicant submits that claim 1 is now in condition for allowance. Claims 2 and 4 depend from claim 1 and, at least for the reasons stated with regard to claim 1, are likewise in condition for allowance. Reexamination and allowance of claims 1, 2 and 4 are respectfully requested.

Claim 3 has been withdrawn from consideration.

4. In the Office Action, claims 11-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yon in view of Irwin, et al. Claim 11 has been amended to include the limitation of claim 13, specifically a steel rule which forms a ridge in the molded article during the thermoforming operation. As discussed hereinabove with regard to claim 1, neither Yon nor Irwin, et al. discloses the use of a steel rule in the forming process. Further, neither reference produces a ridge which facilitates trimming a part free from surplus material in a secondary operation.

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Applicant submits claim 11 is thus in condition for allowance. Claim 12 depends from claim 11 and, at least for the reasons stated with regard to claim 11, is likewise in condition for allowance.

Reexamination and allowance of claims 11 and 12 are respectfully requested.

Claim 13 is withdrawn from consideration.

5. In the Office Action claim 14 is rejected under 35 U.S.C. § 103(a) as being anticipated by Yon in view of United States Patent No. 3,954,923. Issued to Valyi. Neither Yon nor Valyi disclose the use of a steel rule to form a ridge during the thermoforming process. Further, neither discloses thinning the material to facilitate cutting the molded article to free it from the surplus material.

Yon discloses trimming as part of the molding operation, which is inconsistent with the present invention. Valyi discloses trimming in a secondary operation but not disclose the use of a molded ridge to define the periphery of the molded part upon trimming, the result of performing the claimed method. Accordingly, the inventive method of claim 14 is not disclosed in any combination of the cited references.

Claim 14 was amended to use more consistent language in identifying the sheet goods used to form the molded article relative to the terminology employed in the preamble, in particular the term “thermoforming plastic” is now used throughout the claim, not just in the preamble. Applicant respectfully submits that this amendment does not change the scope of the claim.

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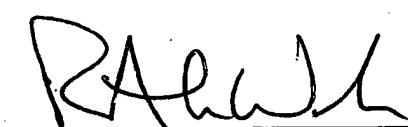
Applicant submits that claim 14 is therefor in condition for allowance. Reexamination and allowance of claim 14 are respectfully requested.

Respectfully submitted,

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